United States
Department of
Agriculture

**Animal and
Plant Health
Inspection
Service**

**National
Wildlife
Research
Center**

Wildlife Services Seeking Solutions Through Research

Managing Depredation and Nuisance Problems Caused by Vultures

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National Wildlife Research Center Scientists Address Vulture Problems

Wildlife Services' (WS) National Wildlife Research Center (NWRC) is the Federal research organization devoted exclusively to resolving conflicts created by the interaction of wildlife and people through the development of effective, selective, and acceptable methods, tools, and techniques.

NWRC conducts research to resolve problems caused by vultures at its Gainesville, Florida Field Station. This research facility is a uniquely designed 26-acre site which allows bird research in outdoor aviaries throughout the year under natural environmental conditions.

As land-use patterns change and urban populations surge into previously uninhabited areas, wildlife conflicts inevitably increase. Of increasing concern are problems associated with black and turkey vultures, two species that have shown the capacity to readily adapt to human activities.

Black vultures prey on newly born livestock and, in association with turkey vultures, form roosts that constitute nuisance, health, and safety problems. In recent years, depredations on livestock and damage to property have increased steadily, and have been reported to Wildlife Services personnel in at least 15 states. Nuisance problems, property destruction, and electric power outages due to roosting vultures are even more widespread.

Additionally, vultures forage at landfills, often located near airports. In their daily flights to and from landfills to feed, vultures pose a major hazard to aircraft. According to the Federal Aviation Administration's Wildlife Strike Database, there have been 152 bird-aircraft strikes involving vultures and civil aircraft since 1991.

The goal of this research project is to understand the relationships between various habitat and land use variables and problems caused by vultures, and to develop effective management techniques for reducing predation losses and property damage.

Applying Science & Expertise to Wildlife Challenges

Management Methods at Vulture Roosts—NWRC scientists are performing evaluations to obtain a better understanding of various techniques for dispersing problem vulture roosts and reducing losses due to vulture depredations. Methods being evaluated include capture and relocation, chemical irritants such as methyl anthranilate, vulture effigies and repellants, and motion-activated sound and light devices.

What Attracts and What Repels Vultures?—Certain materials are frequently damaged by vultures. NWRC scientists are determining why vultures damage vinyl, plastic, and other synthetic construction and insulation materials; developing a characterization of the principal chemicals (especially volatiles) contained in the damaged materials; determining whether these chemicals stimulate pecking/eating responses in birds; and developing a chemical deterrent to such behavior.

Vulture Movement Patterns—An understanding is needed of how roost locations, foraging sites, and home ranges of vultures are influenced by key landscape features such as livestock ranches, airports, landfills, rivers, urban centers, and state parks. Once these determinations are made, usable tools, approaches, and techniques will be developed that WS personnel, property owners, and resource managers can employ when faced with problems related to vultures.

Vulture Depredation on Livestock—Because of the steady increase in reports of vulture depredation to newly born livestock, field work has emphasized better understanding and documentation of the role of vultures to livestock predation.

Groups Affected By These Problems:

Airports
Airlines
Air travelers
Homeowners
Construction contractors
Livestock producers
Utility companies
Boat owners

Major Research Accomplishments:

WS evaluated satellite telemetry for use in relocating vultures from problem areas

WS identified novel repellent strategies (effigies and lasers) to move vulture roosts from structures

Selected Publications:

Humphrey, J.S., M. L. Avery and A. P. McGrane. 2000. Evaluating relocation as a vulture management tool in north Florida. Proceedings of 19th Vertebrate Pest Conference, March 6-9, 2000, San Diego, CA. pp. 81-83